

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated July 14, 2004 and the phone interview with the Examiner conducted on September 23, 2004. Applicants thank the Examiner for taking the time to conduct the telephone interview.

During the interview, the Examiner asserted that it is prima facie obvious for one skilled in the art to replace the client in Wollrath with an user of the invention and applying the program-specific approach for lease to anticipate the user-specific approach for usage estimation. Applicants strongly disagreed with this position and will traverse that position herein below.

In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-7 are under consideration in this application. Claims 8-14 are being cancelled without prejudice or disclaimer. Claims 1-7 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicants' invention.

Additional Amendments

The claims are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 3-5 were rejected under 35 U.S.C. § 101 due to the claiming of non-statutory subject matter. As indicated, the claims have been amended as suggested by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejection

Claim 1 was recited under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,263,350 to Wollrath et al. (hereinafter “Wollrath”) and in view of U.S. Pat. No. 6,427,152 to Mummert et al. (hereinafter “Mummert”), claims 2-6 were recited as being unpatentable over Wollrath in view of Mummert and further in view of U.S. Pat. No. 5,410,598 to Shear (hereinafter “Shear”), and claim 7 was rejected as being unpatentable over Wollrath in view of Mummert and Shear and further in view of U.S. Pat. No. 5,276,867 to Kenley et al. (hereinafter “Kenley”). These rejections have been carefully considered, but are most respectfully traversed, as more fully discussed below.

A service method of a rental storage of the present invention, as now recited in claim 1, in which rental storage *users (legal entities, e.g., persons, corporations with capacity to make contracts and pay bills;* “terminal used by the storage user” in Fig. 3) uses the rental storage provided by a storage provider or a network and **each of** said rental storage users (“*as shown in FIG. 5, the file has fields including the user identifier, the billing method, the contracted capacity, the charge interval, the report limit, and the amount estimated of capacity for each user record*” p. 25, lines 1-4; “*The history data file 87 is a data file for recording at a regular basis the amount of data in the storage used by the rental storage service user 1. ... as shown in FIG. 6, the file has fields of user identifier, date, storage area, and the amount of data for each user record*” P.26, last paragraph) and said storage provider communicate with respect to rental storage service, comprises: using storage of said storage provider by each of the rental storage users; providing by the storage provider **estimation of data amount in the rental storage for future storage usage of EACH of the rental storage users**, based on the history of storage usage of each of the rental storage users; and reporting the estimation to each of the rental storage users.

The invention is also directed to another service method of a rental storage recited in claim 2, similar to that recited in claim 1, but further comprising: making a contract between said rental storage service provider and said rental storage service user so as to configure contract options based on the contract of use of storage service; reporting charge to the rental storage service user by the rental storage service provider; paying the charge for the use of said storage by the rental storage service user to the rental storage service provider; reporting the history of storage usage record; and reconfiguring said contract options by said rental storage service provider.

The invention is also directed to another service method of a rental storage recited in claim 3, similar to that recited in claim 1, but further comprising: when said rental storage service provider and each of the rental storage service users make a contract and the contract options based on the contract of use of said storage specifies a charge system for contracted amount of data according to predetermined usage; and proposing to each of the rental storage service users a recommended contract on an amount of data according to the estimation.

Applicants respectfully submit that none of the cited prior art references discloses, teaches or suggests that "a rental storage service provider estimates data amount in a rental storage for future storage usage of EACH of the rental storage users based on the history of storage usage of one individual rental storage user" to optimize the *user's* rental storage usage corresponding to contract options and billing charges thereby reducing the user's cost (p. 60, lines 11-14), according to the invention.

In contrast, Wollrath only discloses a system that a server grants a lease period for clients, i.e., "*computational entities (e.g., applications, programs, applets, etc.) executing in the computers* (col. 2, lines 43-46)". Wollrath's server (computer hardware, not a person or corporation) merely grants and determines a lease period automatically for a program ("the client"; a software, not a person or corporation) that request to the server (col. 12, lines 39-43). Wollrath's lease does not involve persons and corporations, but between the computer programs and the server managing the storage space. While the "lease" is active, the computer program is guaranteed access to the group of storage locations and may perform read and write operations on them, and the server maintains the storage locations' integrity, e.g., preventing the leased file to be deleted, written over, or otherwise affected by any entity other than the client (col. 12, lines 53-59). In short, Wollrath merely discloses interaction between the software programs and the hardware server, rather than among persons and corporations.

The Examiner's analogy between "Wollrath's clients, i.e., "*computational entities (e.g., applications, programs, applets, etc.) executing in the computers* " and "the invention's rental storage *users (legal entities, e.g., persons, corporations with capacity to make contracts and pay bills)*" is questionable **in the absence of any concrete evidence in the record to support the analogy as known in the art**. Any such alleged "*prima facie obvious*" fact in the art shall be considered only based upon concrete evidence in the record for support.

"It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based.

Zurko, 258 F.3d at 1385, 59 USPQ2d at 1697 ("[T]he Board cannot simply reach conclusions based on its own understanding or experience-or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings."). While the court explained that, "as an administrative tribunal the Board clearly has expertise in the subject matter over which it exercises jurisdiction," it made clear that such "expertise may provide sufficient support for conclusions [only] as to peripheral issues." Id. at 1385-86, 59 USPQ2d at 1697. As the court held in Zurko, an assessment of basic knowledge and common sense that is not based on any evidence in the record lacks substantial evidence support. Id. at 1385, 59 USPQ2d at 1697. See also In re Lee, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002) (In reversing the Board's decision, the court stated " 'common knowledge and common sense' on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the Administrative Procedure Act. Conclusory statements such as those here provided do not fulfill the agency's obligation.. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies."). " As such, the Examiner shall provide "some concrete evidence in the record in support of" factual assertion to rely solely on "common knowledge" in the art as the principal evidence.

Mummert fails to compensate for Mummert's deficiencies since Mummert merely predicts future utilization of the physical **storage container (computer hardware**, i.e., storage resources in a computer system; Abstract), rather than future storage usage of said **rental storage user (legal entities**, e.g., persons, corporations with capacity to make contracts).

Mummert only combines object histories "*to create a history of the utilization of the container as if it had, in the past, only held the current inventory of objects. In this way, the errors inherent from the previous addition and deletion of objects is eliminated. ... The combination of the combining of histories and the added length of the histories may result in more accurate projections of future utilization of the container. More accurate projections allow for the more accurate management of storage environments* (col. 4, lines 10-20). "

Secondly, as admitted by the Examiner (p. 7, third paragraph of the outstanding Office Action), Wollrath does not disclose a rental storage method or system for users which estimates amount of data usage and reports to the users as this invention. Mummert was relied upon by the Examiner to teach "providing by the storage provider estimation of future storage usage of said rental storage user, based on the history of storage usage of said rental storage user."

The Examiner selectively pieced Wollrath's program-specific approach for lease with Mummert's usage estimation of a container to anticipate the user-specific approach for storage usage estimation. Applicants will strongly contend that a person of ordinary skill in the art could not provide the method as claimed by the Applicants based on the above prior teachings except by using Applicants' invention as a blueprint. Applicants will point out that a rejection based on hindsight knowledge of the invention at issue is improper. The combination of references used by the Examiner merely consists of selecting bits and pieces from each reference, and then combining those bits and pieces using knowledge or hindsight gleaned from the disclosure of the present invention as a guide to support the combination. The well established rule of law is that each prior art reference must be evaluated as an entirety, and that all of the prior art must be considered as a whole," *Panduit Corp. v. Dennison Mfg. Co.*, 227 USPQ 337, 344 (Fed. Cir. 1985). See *Para-Ordinance Mfg. Inc. v. SGS Importers Intl., Inc.*, 73 F.3d 1085, 37 USPQ2d 1237 (Fed. Cir. 1995) ("Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor.").

Wollrath only determines a lease period for each program, but not estimates storage usage for each program, much less about estimating storage usage for **each of the users**.

Mummert fails to compensate for Mummert's deficiencies since, at most, Mummert predicts future utilization of the physical **storage container** (*hardware, i.e., storage resources in a computer system*; Abstract) by ALL users as a group (derived from "*The capacity of a storage environment is the sum total of the capacity of all storage subsystems within the environment.*" Col. 3, lines 19-25), rather than future storage usage by each INDIVIDUAL rental storage user (*legal entities, e.g., persons, corporations with capacity to make contracts*).

Mummert simply does not calculate or provide **data amount** in the rental storage for future storage usage for each individual rental storage **user** (*e.g., persons, corporations*), or the history of storage usage of each individual **user**, or reporting to each individual **user** estimation of data amount in the rental storage for the **user's** future storage usage.

Although the invention applies the general usage estimation mechanism as disclosed in Mummert, the invention applies the mechanism on **each user** rather than a **storage container** to achieve unexpected results or properties. For example, "to optimize the user's rental storage usage corresponding to contract options and billing charges thereby reducing the user's cost (p. 60, lines 11-14)," i.e., **user-oriented**, rather than to prevent service outages caused by reaching capacity limit of the container as in Mummert (p.6, lines 7-8 of the outstanding office action),

i.e., **container-oriented**. The presence of these unexpected properties is evidence of nonobviousness. MPEP§716.02(a).

“Presence of a property not possessed by the prior art is evidence of nonobviousness. In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (rejection of claims to compound structurally similar to the prior art compound was reversed because claimed compound unexpectedly possessed anti-inflammatory properties not possessed by the prior art compound); Ex parte Thumm, 132 USPQ 66 (Bd. App. 1961) (Appellant showed that the claimed range of ethylene diamine was effective for the purpose of producing " 'regenerated cellulose consisting substantially entirely of skin' " whereas the prior art warned "this compound has 'practically no effect.' ").

Although “[t]he submission of evidence that a new product possesses unexpected properties does not necessarily require a conclusion that the claimed invention is nonobvious. In re Payne, 606 F.2d 303, 203 USPQ 245 (CCPA 1979). See the discussion of latent properties and additional advantages in MPEP § 2145,” the unexpected properties were unknown and non-inherent functions in view of Wollrath and Mummert, since they do not inherently achieve the same results. In other words, these advantages would not flow naturally from following the teachings of Wollrath and Mummert, since they fail to suggest estimating usage for **each user**.

Applicants further contend that the mere fact that one of skill in the art could modify the combination of Wollrath and Mummert to meet the terms of the claims is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for one skilled in the art to provide the unexpected properties, such as to optimize the rental storage usage of **each of the users** corresponding to contract options and billing charges thereby reducing the cost of **each of the users**, without the benefit of appellant's specification, to make the necessary changes in the reference device. *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984). MPEP§2144.04 VI C.

Contrary to the Examiner’s assertion that it’s obvious to report the usage history and estimation to each of the storage users (p. 6, 2nd paragraph), Applicants respectfully contend that the service provider has no motivation to provide its container usage history and usage estimation by ALL users to each user, and each user is not interested in receiving such data since each user can’t determine the user’s own usage based upon the group usage history and estimation. By

analogy, it's not obvious to "propose to each user a recommended contact based upon the user's own usage estimation."

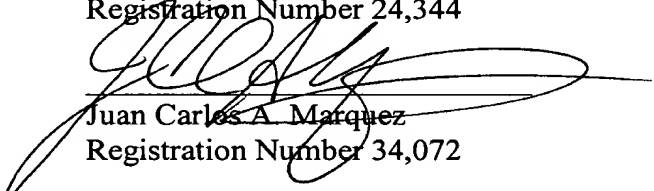
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed in independent claims 1-3 and the prior art references upon which the rejections in the Office Action rely, Applicant respectfully contends that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344



Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

September 27, 2004

SPF/JCM/JT